U.S. Army Center for Health Promotion and Preventive Medicine

Just the Facts
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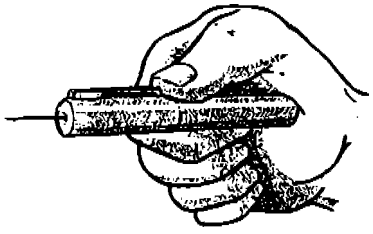
Hazard Alert for Pen-Like and Other Laser Pointers



- RPOs and LSOs
- Hazard Alert
- Laser Safety

Purpose

The use of potentially hazardous visible laser diodes is becoming widespread in many applications. Potential hazards and an accident have been identified by the laser safety community. Users of these products need to be alerted to the potential hazards associated with these devices.

Devices Of Concern

One device has raised particular concern — the pen-like laser pointer. Relatively inexpensive. readily available, and powered by common batteries, these small lasers produce a very narrow, bright red beam that can be used in presentations or for aiming firearms. One accident occurred when an individual stared into a laser mounted incorrectly on a pistol.

Hazard Identification

The potential hazard is limited to the unprotected eyes of individuals who look at the laser from within the direct beam. No skin hazard exists. The natural aversion response or blink reflex of the eye from the bright light would limit exposure to a safe level for devices with a cautionary label. Devices with a danger label can exceed momentary viewing criteria, and an individual should never look at the laser from within the beam. The 670 nm wavelength is only 1/8th as visible as the 633 nm HeNe wavelength, thus it appears less dangerous than it really is. Buyers should be wary of seller claims of device safety.

How Devices Are Promoted

These laser pointers are commonly found in novelty mail-order magazines, at electro-optics trade shows, and at various electronics stores. Although some of these devices contain warning labels, many have been erroneously advertised as "safe."

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How to Use the Devices *Safely*

Users of the laser pointer must never aim the pointer into the audience. Users could also unscrew the case enough to disable the power source when storing it in their shirt pocket or briefcase. These devices are not toys and should not be used by children.

Conclusion

Despite their size and the fact that most are powered by small, commonly available batteries, these pointing devices can cause, and reportedly have caused, eye damage as a consequence of improper operation. Laser pointers **with** a **"caution"** warning label require few safety controls and should be purchased rather than one with a **"danger"** label.

The preceding information was prepared by the Department of Defense Laser System Safety Working Group (LSSWG) and should be widely disseminated. Further service information can be obtained from:

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